

Comb or Extracted Honey?  
C. P. DADANT.

Deliquescent Powers of Honey,  
ALLEN LATHAM.

# AMERICAN BEE JOURNAL

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Home Apiary of H. G. Sibbald, of Ontario, Canada.





# AMERICAN ESTABLISHED IN 1861 BEE JOURNAL THE OLDEST BEE-PAPER IN AMERICA

Entered at the Post-Office at Chicago as Second-Class Mail-Matter.

GEORGE W. YORK, Editor.

CHICAGO, ILL., APRIL 7, 1904.

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## Editorial Comments

### Ordering Bee-Supplies Early.

It has been customary to offer an annual suggestion to purchasers of bee-supplies to order them early. While there may never be another season like that of 1903, still there are always quite a number of those who put off ordering the necessary supplies until the rush-time comes, which is usually in May and June. We shall never forget last season's experience. While all dealers like to do a good business, it did seem that for several months last year it was "too much of a good thing." If we had to go through such an experience every year, we would think that life was hardly worth living. But having had that experience, we can the better sympathize with those dealers who become overwhelmed with orders during the rush-time of the season.

In view of this, we want to urge upon all of our readers, who can foresee that they will require certain supplies, that they order them *at once*, so that they can receive them before the time when they will actually be needed. There must have been many bee-keepers last year who lost much honey because they could not get the necessary supplies. No doubt many of them decided then that they would never be caught that way again.

We believe that most dealers have made an extra effort during the past winter to provide themselves with a large stock of goods, so as to be able to fill orders as promptly as possible. Of course, their present stock may not last very long, but those who get their orders in first will be the ones who will be supplied.

We can not conceive of anything more exasperating, and trying on the nerves, than to be disappointed in getting bee-supplies when they are absolutely required in order to take care of the honey-flow in a proper manner. It certainly does not pay to get the colonies of bees in good condition for the harvest, and then be unable to give them plenty of storage-room when the honey-flow is on in good earnest. As we recollect the many urgent orders received last year, when it was impossible for us to get supplies fast enough from the factory to fill our orders, it makes us want to impress the fact very emphatically upon our readers that they should get their orders in *early*, so that there will be no doubt about their having the goods they need just when they must be used. We think a great many make the mistake of "living from hand to mouth" in this matter. They seem to be afraid of having on hand a few extra supplies. Fortunately, most bee-supplies are not perishable, so no one need fear loss from that cause when they have an extra supply.

During the rush honey season of last year, it was not a question of what bee-supplies cost, but the trouble was to get them at all. It seemed that practically all the bee-supply factories were several weeks behind and could not get caught up, as the season continued for so long a time. We remember having placed orders for three car-loads of goods at one time, but of course we could not have used them all in one week, even had they been so shipped. In fact, we could not possibly have handled three car-loads of supplies in one week, even though working night and day.

But please do not blame the supply-dealer later on if he fails to fill your order when there are so many others who, like yourself, have

delayed sending in their orders. He probably will be doing the best he can, as no doubt every dealer desires to ship as promptly as possible, especially when he has received the money with the order.

Again we say, do not delay giving your order for bee-supplies to your dealer in time. Give him a chance to serve you promptly and well, and he will likely do it.

### A Fault of the Paper Honey-Package.

Editor Root says that honey in paper packages must be gotten out of the way before hot weather, under penalty of making a dauby, sticky mess. That is a rather serious objection to the paper honey-package.

### Winter Losses of Bees.

A request was made by Gleanings in Bee-Culture, some time ago, as to the result of the wintering of bees among its readers. The responses are summed up as follows for points east of the Rocky Mountains:

There will be heavy losses, just as I feared. A large number report from 50 to 75 percent of the bees dead—some all dead. New York seems to have sustained the heaviest losses; then next in order I would place Michigan, Ohio, Pennsylvania, Indiana, Wisconsin, and the New England States. Illinois does not seem to have had very severe losses, although some bee-keepers have had a good many bees die. Iowa seems to show up well. In Missouri, and in most of the States west of the Mississippi and east of the Rockies, the winter has been very favorable, and the bees are in prime condition. There have been some losses in West Virginia, but most of the other States south of the Ohio River will show good wintering.

But now let it be understood, the places where losses were very heavy seemed to be confined almost entirely to outdoor-wintered bees. I do not remember to have had a single report out of the large number received when there was bad wintering in cellars or repositories. A few bee-keepers in regions where losses have been extremely heavy, report excellent wintering outdoors. Among the number is J. B. Hall, of Canada.

Whether these losses will affect the clover market next summer remains to be seen.

Since the first of March the weather has moderated very materially over the country—just enough to give occasional flights in warm localities, but cool enough to prevent brood-rearing going on to any extent.

The foregoing agrees with the reports we have received on the same subject, as may be noted from week to week in our department "From Many Fields."

### The "Glucose-Honey" Story Again.

We have received the following letter from Mr. J. F. Michael, of Randolph Co., Ind., dated March 19:

Wonders never cease to multiply. My old home county newspaper has this statement:

"The greater part of the honey sold in this country never saw inside of a bee-hive. A little dextro-glucose makes a 'pure select table honey.' This is quicker than the bees can make the 2,625,000 cells necessary to gather a pound of honey."

I mailed the editor a copy of the editorial on the Inter-Ocean article, which appeared on page 195 of the American Bee Journal. I told him he was doing an injury to a great American industry, which has no trust to boom prices, but relies on supply and demand for its profit. I believe he did not intend any harm to our industry, and furthermore I believe he will tell his readers that there never was one pound of manufactured honey sold in America. J. F. MICHAEL.

We are glad that Mr. Michael so promptly called the attention of that newspaper editor to his great mistake. He certainly should be willing to make prompt and full correction. We wish more bee-keep-



ers would follow up more promptly anything that they see in the newspapers or other publications that is so wide of the truth, and which might result in injury to the producers of pure honey.

Some of these days we hope the National Association will be able to take up all such matters that may be referred to them, and if corrections or retractions are not made by the newspapers about the publication of such untruths, it will be able to proceed in a legal way against them, and compel as public a correction as was the injustice.

If the National Association were able to do advertising in the daily papers, and thus place before the public the truth about honey, it would go a long way toward ending the baseless untruths that are continually passing around among the newspaper press. It will take a long time to correct the mistaken ideas that have been formed in the minds of many people through hearing the many statements that have been repeated during the last 20 years or more. It is a matter in which bee-keepers must co-operate, even if the National Association should undertake to take the lead in this very necessary work. We must get the truth a-going in the interest of not only the bee-keepers, but so that the people may be able to get correct ideas about honey and its production.

LATER.—Since writing the above, we have received this from Mr. Michael, dated March 28:

Gentlemen:—The editor of the Democratic Advocate treated me very well in the statement of bogus comb honey. He says: "A bee-keeper says 'No.'" He prints the editorial article referred to, and then comes my comment, making a very nice retraction. I thanked him for publishing my article, and think the matter will die.

J. F. MICHAEL.

And thus another newspaper editor knows more of the truth about honey than he did before. So do his readers. Let the good work go on.

### Chayote as a Bee-Plant.

On page 180, from Mr. W. A. Pryal appears something on this subject. We have now received the following from Mr. Harry Howe, of Cuba:

The writer of the Saturday Evening Post article on the chayote, was evidently drawing on his imagination in the interest of the seed-men. I have several plants growing, but I do not think it is ahead of the cucumber for honey. The fruit is a sort of cucumber with one big seed. The vine dies every year here. It is a climber, and bears lots of fruit, but not as described.

HARRY HOWE.

About the same time we heard from Mr. Howe, we received Bulletin No. 28 of the Department of Agriculture on "The Chayote: A Tropical Vegetable, by O. F. Cook, Special Agent for Tropical Agriculture." From certain ear-marks, we are led to believe that the bulletin was sent to us through the kindness of Mr. Frank Benton, Apicultural Investigator for the Department of Agriculture. If we are correct in this, he has our thanks for his thoughtfulness.

Referring to the bulletin, we find the following paragraphs bearing directly on the chayote's

#### VALUE AS A BEE-PLANT.

As in other vegetables of the squash family, the stamens and pistils are in separate flowers, pollination taking place through the agency of insects. To attract these the flowers of both kinds, but especially the pistillate, yield abundant nectar, which is secreted in ten glands, two at the base of each of the lobes of the corolla. In most of the countries into which it has been introduced, bee-keeping has not been a regular industry, and the value of the chayote as a source of honey has not been noticed, but the reports of experimenters in New South Wales contain very emphatic statements on the subject:

"When the plant is in flower I have noticed that the vines were swarming with bees, and as flowers are scarce in the autumn the plant will no doubt be valuable as a honey-producer.

"The plant, which spreads over a large area, commenced flowering at the close of the year, and has been well laden with mellifluous blossoms ever since. The bees are extremely fond of the chocho, and with the apiarist the newly introduced plant must become a strong favorite."

From the photograph of a flowering stem it will be seen that the chayote differs from many Cucurbitaceae in producing numerous flowers on each fertile branch. It has long been known that the flowers of this family are rich in honey, but from the standpoint of the bee-keeper they have been considered of little importance because seldom accessible in sufficient amount, though in the United States fields are recognized as good bee-pastures. The chayote seems to make up by numbers what the flowers lack in size, so that the yield of honey may be larger than in related plants. In addition to this there is the fact that *Sechium* is a perennial bloomer in the Tropics, and in the subtropical regions has a very long season. It is thus possible that in regions like parts of Florida, where bee-keeping is already an established industry, the honey-producing qualities of the chayote may be found of practical account in connection with its other utilities.

Since the foregoing was prepared for publication, we have received the following on the subject, from Mr. J. J. Siebert, of Porto Rico, where, doubtless, the chayote is quite at home:

EDITOR AMERICAN BEE JOURNAL—

Dear Sir:—In your issue of March 10, page 180, you will find an article about the "Chayote," called in Spanish "Tayote."

Allow me to state that the Tayote is all it is claimed to be. As a nectar-blossom it has only one rival, that of the banana, blossoming all the year around. The fruit is pear-shaped, and can be prepared as a vegetable, salad, or as a preserve.

Very truly yours,

J. J. SIEBERT.

## Miscellaneous Items

Mr. Morley Pettit, of Ontario, Canada, writing us March 26, said:

"I took the bees out of the cellar Wednesday, March 23, mostly in good condition; none dead. Outside bees were only fair—5 percent dead. Prospects seem good; but time will tell."

Mr. Will L. Cowan, of Montgomery Co., Ohio, a grandson of Father Langstroth, called on us last week when in Chicago. He is a tall young man, of excellent appearance, and seemingly fine ability. He is one of a family of seven children. His father died shortly before his grandfather, of blessed memory, the latter passing away in the fall of 1895. We had the great pleasure of meeting his mother and Father Langstroth at the National convention, held in Toronto, Ont., that year. It was the last meeting of bee-keepers Father Langstroth ever attended, as he died very suddenly about a month thereafter.

## Contributed Articles

### No. 4.—Comb or Extracted Honey—Which?

BY C. P. DADANT.

THE greatest item in favor of extracted honey as compared to comb honey is the economy of production to the bees. Comb costs the bees time, labor and honey. The quantity of honey needed has been variously estimated at from 2 pounds to 20 pounds to produce one pound of comb. Some modern writers have asserted that the cost had been exaggerated by previous writers, but no very definite proof has ever been adduced. The scientists who have tried the experiment by confining the bees and feeding them have found the cost so great that there must be some disadvantage in the confinement that made an increase of consumption. And so there must be. Most of the experiments have been more or less guess-work, as some condition or other has been overlooked that would change results.

It seems to me that the only way to arrive at anything like a correct solution would be to take two swarms of exactly the same weight, both loaded with honey, as is usual when they swarm naturally, and give to one of these empty combs, to the other an empty hive, and test the weight of honey and wax in each after 24 or 48 hours. Just as soon as eggs begin to hatch, in the hive to which the built combs have been given, the test becomes uncertain, as a portion of the harvest is used to feed the brood. There will still be some conditions of uncertainty, such as the greater or less number of drones accompanying each swarm—for these are great eaters—the greater or less amount of moisture contained in the honey, and other minor details. So it is impossible to get to a fixed result.

Then it is possible—I should say most probable—that the results differ in different conditions, as the fattening of animals differs in results according to the season, the warmth, etc. For I cannot help comparing the production of beeswax by bees to the production of fat by animals, although the two are not absolutely similar. Wax is a fatty substance, and requires similar ingredients to those of fat in its production. Honey from which it is produced, must

necessarily be much changed in the process, and a great portion of its constituents eliminated.

I will add in this connection, that among those who have disputed the high cost of comb, in the economy of the hive, a French writer, Sylviac, in several European publications, has lately asserted that comb was made of some other material than honey, but this material seems to have remained a mystery for him as well as for the rest of the fraternity. I would not mention this assertion, which has no weight, except as an example of what arguments may be used, by writers of undoubted ability, when they allow themselves to draw too much on their imagination. The writer in question, I will say, is not a practical apiarist, but an amateur.

I have often heard the remark made that it is astonishing how fast bees can build combs in a good season. I have noticed it myself, but we know that a pound of combs occupies a very large space, and as the bees harvest honey very freely at the time the comb is built, even if combs were to cost them 15 pounds of honey for each pound of wax, it would be but a day or two of delay to build most of the combs of a colony, yet the saving realized by giving them the comb already built would be well worth considering.

I have heard it stated by some apiarists that the day was coming when the production of beeswax would pay better than that of honey. No one has had faith enough in such an assertion to give it a trial in practice, and I dare say that it would not take long to convince any one of its fallacy. Those who have tried to feed extracted honey to fill up sections have invariably reported that it did not pay, that the cost was too great, and I do not believe it will ever pay, much less will it pay to let the bees expend their honey for wax-production alone.

When we put all testimonials together, the cost of comb honey appears to be fully twice that of extracted honey; that is, the bees can harvest twice as much honey when the combs are already built as when they have to build them. This I take as an average. In some seasons there will be less cost to the building of comb, while in other years the cost will be increased. The most expensive production of comb honey to the bees comes when the crop is very short and very sudden. If the weather has been cold, backward, rainy, unfavorable, in short, and a suitable day comes suddenly to be followed perhaps by five or six other such days, and then the crop ceases—in such a case the production of extracted honey is far ahead of that of comb.

In the first instance, the combs are ready for harvest and there is no delay, no loss of time, the bees are at work *en masse*.

In the second instance the suddenness of the crop has taken us unawares, and they have had hardly time to build a few combs when the flow is at end. A large crop cut short, suddenly, by a storm and continued bad weather, will also leave the comb-honey production in bad shape, as many combs have been built, and partly filled, and must be abandoned. A big flow, uninterrupted and steady, is the most encouraging for comb-honey producers, and that is why I insist that the production of comb honey will be most especially successful in localities where large crops are the rule.

My last, and least, grievance against the production of comb honey is that it requires the use of a number of contrivances for which I never had any fancy—separators, queen-excluders, honey-boards, etc. With the production of extracted honey none of these is needed; at least not by the methods we follow. We connect the upper and lower stories as freely as possible, and make things as convenient for the bees as it is possible to do.

Now that I have given you as much as in my power the most favorable view of the production of extracted honey, I must do the fair thing and give you the dark side of the picture in a closing article.

Hancock Co., Ill.



## The Deliquescent Powers of Honey.

BY ALLEN LATHAM.

MUCH has appeared in the American Bee Journal about the water-gathering powers of honey, some writers taking the ground that honey has no such power, and others taking the other view. On page 30 we get the most extreme statement of the former. Mr. Johnson not only informs us that honey will not gather moisture, but that no liquid has that power—a statement which he would find

most difficult to prove, except in a technical and hair-splitting way.

There are many liquids which are, in the common meaning of the term, deliquescent, and honey is one of them. I have recently tried an experiment to prove that honey has this property, and though my experiment is not absolutely conclusive, it will probably satisfy most of the readers of the American Bee Journal.

A watch-glass was cleaned and counterpoised on a balance of extreme delicacy, a piece of paper the size of the capping of a worker-cell being sufficient to throw the balance out of equilibrium. There was then placed on the glass 5 grams (about a thimbleful) of honey—a well-cured honey of first quality. Honey was added or subtracted by a pin-point till a five-gram mass was excellently balanced. The balance was left with the glass of honey on the pan, and the counterpoise on the other pan for several days, being weighed each day. Day by day it lost weight.

The air in this locality during the present winter has been extremely dry much of the time, the humidity running as low as 30 not infrequently. A saucer of honey set aside has gummed over instead of getting thin, as so often happens. So with the honey in the experiment, it got thicker and thicker, and showed no signs of gathering moisture. I saw that I should have to create a moist atmosphere for it, and on the 5th or 6th day began to burn a jet of hydrogen in the balance case a few minutes daily. Burning hydrogen furnishes pure water. Fearing to injure the delicate balance by the moisture, I placed the glass under a bell-glass under which water had been boiled, this being first done on the 18th day. This was continued till the close of the 33rd day.

On the 33rd day I dried the bell-glass thoroughly, and put under it with the watch-glass of honey two shallow dishes of calcium chloride. This chemical has the power to take water from the air, and is used to dry air with. My purpose was, of course, to dry the air and thus cause the air to take away from the honey the moisture which it had accumulated. These conditions were continued for nine days.

The watch-glass of honey was weighed daily when possible. Business and an attack of the grip prevented an unbroken record. I offer below the results, which will tell a story for themselves.

It is to be observed that the loss or gain in weight is not uniform, a fact which is to be accounted for by variations in temperature, humidity of outer air, and irregularity in replenishing the moisture in the air under the bell-glass. I incidentally discovered that air will get dry though there be the tiniest crack for the diffusion of the inclosed air with that outside.

I say that my experiment is not absolutely conclusive, for the reason that I did not analyze the honey before and after the experiment, but only a very obtuse person will question the conclusion that honey will absorb water. Several circumstantial facts point that way. The honey grew thinner as it increased in weight. As the honey grew thinner it gained in bulk. At first there was only a thimbleful, but at the time of the greatest weight there were about two thimblefuls. The increase in weight varied very regularly with the amount of water in the air. The honey grew thicker as it lost weight. The honey did not differ in appearance at the close from what it was at the start of the experiment.

I tasted the honey at the close. Though it had not lost body nor sweetness it had lost all its fine flavor, and tasted rank. Mr. Johnson will doubtless say that this proves decomposition, but not I. I believe that it simply means that the volatile oils which the honey had at first had been lost, and that the foul air from the burning alcohol lamp had given a new flavor. Flavors are hard to weigh on a balance, though they may be weighed with money.

Had decomposition of any sort taken place it is reasonable to suppose that gases would have appeared in the honey. This was not so. At all times the honey was clear as jelly, and whatever was gained or lost was through the surface of the honey. This last fact is seen from the circumstances that when the honey was losing weight the surface honey was thicker than that below, while the reverse was true when the honey was gaining weight, the surface then being thinner.

In trying to prove that honey is deliquescent I have at the same time proved it to be efflorescent. This is much like saying that a thing is white and is also black, for deliquescence and efflorescence are directly opposed properties. Yet the honey gained water when the air was humid, and lost water when the air was dry. It would seem that there is a certain (possibly not fixed) humidity point above which



honey will gain moisture from the air, and below which honey will yield water to the air. I think that this point ranges near 60 percent of humidity. I have not proved it.

It will be observed that the honey weighed the most on the 30th day, when it weighed 7.045 grams, a gain of over 2-5, or about 41 percent. After it had reached this weight I found difficulty in keeping the air sufficiently moist to permit the honey to hold that weight. This suggests that honey as it gains water becomes less deliquescent, and should give up water though the humidity is over 60 percent, say.

Practically it makes no difference to the bee-keeper whether the honey actually takes in water or not, but it does mean much to the bee-keeper to keep well in mind that honey and air should have a water-tight, and air-tight, partition between them.

Weight at the start.....	Grams
" " close of 1 day.....	5.0000
" " " " 2 days.....	4.98
" " " " 3 ".....	4.96
" " " " 4 ".....	4.9465
" " " " 5 ".....	4.935
" " " " 7 ".....	4.943
" " " " 8 ".....	4.962
" " " " 9 ".....	4.975
" " " " 10 ".....	4.995
" " " " 11 ".....	5.016
" " " " 12 ".....	5.005
" " " " 15 ".....	5.11
" " " " 16 ".....	5.125
" " " " 17 ".....	5.262
" " " " 18 ".....	5.457
" " " " 19*.....	5.677
" " " " 23 ".....	6.042
" " " " 24 ".....	5.735
" " " " 25 ".....	6.053
" " " " 26 ".....	6.32
" " " " 29 ".....	6.545
" " " " 30 ".....	6.795
" " " " 31 ".....	7.045
" " " " 32 ".....	6.86
" " " " 31 ".....	6.837
" " " " 31 ".....	6.98

Calcium chloride placed in bell-glass.

Weight at close of 4 days.....	Grams
" " " " 5 ".....	5.253
" " " " 6 ".....	5.137
" " " " 9 ".....	5.035
" " " " 9 ".....	4.9073

\*Taken sick at this time. New London Co., Conn.



## Use of Separators in Section Honey, Etc.

BY E. V. PAGAN.

MR. WM. M. WHITNEY, whose communications I always read with interest, in his article on page 198 entertains the idea that it is better not to use separators.

He argues that because brood-combs straight as a board are easily produced, the same results should follow with sections without separators. So they will, in every case, if sections, like brood-combs are filled with brood. That's not what sections are for.

Give him, he says, certain things, among them a full force of good workers, a good flow of nectar, and some one else can use the separator. If Mr. Whitney always has these he is specially favored, and may dispense with separators. Management has much to do with the strength of colonies, but the best we can do most of us do not always have colonies of the same strength, and it sometimes happens that for some reason a colony working on sections no longer has "a full force of good workers." Still, we might get along without separators so far as that is concerned.

But "a good flow of nectar" during the whole of the time sections are on is a thing not within the control of the bee-keeper, and probably few bee-keepers can rely on a thing of that kind one year after another. Often a lull comes right in the flush of a flow, and after a few days the flow is on again, and at such times if there are no separators there is likely to be some bulging of sections.

However it may be with Mr. Whitney, the fact remains that a large number of bee-keepers, men of much experience, who are in it for the dollars, and wouldn't use separators if it didn't pay, say they can not dispense with them. They are probably quite willing to be the "some one else" that Mr. Whitney says can use the separator.

## SIZE OF QUEEN-CELL OPENING BEFORE RECEIVING THE EGG.

On page 199, Mr. Atwater suggests that "queen-cells, just before being supplied with an egg, are always contracted at the mouth to about the size of a worker-cell." I think the bees will not support that view, Mr. Atwater, about a third of an inch being probably the diameter you'll find. But I suspect that if you ask a queen she'll tell you that the shallowness of the cell makes up for the width, and that she's just as much cramped to lay in a shallow queen-cell as in a worker-cell.

## RELIQUEFYING JARS OF HONEY—RENDERING BEESWAX.

There must be a leaky spot in our good Afterthinker's memory. He speaks of "reliquefying jars by dry heat without destroying labels," as if it were a new thing. Page 200.

Mr. Hasty, in speaking of wax-pressing, on the same page, has evidently in mind his experience with methods other than the German wax-press, when he speaks of the value of the several diggings over, and the danger of leaving wax boiling on the stove. I feel sure that a man of his good judgment would not give several diggings to a batch of stuff in such a wax-press, and I have serious doubts whether he would give even one. Neither would he find there was anything dangerous in going off and leaving the machine to itself all day long, unless the water should all boil out.

## FLY OR DRONE GATHERING POLLEN.

A. Y. Baldwin, page 203, wishes he was a Mr. Hasty. Was he not a bit hasty when saying what he did at that very time? Because there is a fly that looks very like a drone, does that warrant him in saying that the insect Editor Freyhoff saw gathering pollen was one of those flies? Editor Freyhoff is not the ignoramus that Mr. Baldwin supposes him to be. Would it better the case any if Mr. Freyhoff had said it was a fly? Did Mr. Baldwin ever see a fly of that kind, or a fly of any kind, busy at work gathering pollen?

# Convention Proceedings

## Report of the Ontario Bee-Keepers' Convention Held in Trenton, Dec. 1, 2, and 3, 1903.

BY MORLEY PETTIT.

(Continued from page 246.)

Next on the program was the question-box, taken up by Mr. Morley Pettit, as follows:

### KEEPING POLLEN OUT OF SECTIONS.

"How can we keep pollen out of the sections?"

Mr. Pettit—In hiving swarms on starters, use starters and one comb to catch the pollen, also a queen-excluder.

Mr. Sibbald—Would you not have bees start more in the lower story by using combs?

Mr. Pettit—I have not had that trouble to any great extent. Of course, this is a matter of locality.

Mr. Sibbald—They build more drone-comb.

Mr. Pettit—Yes, that is the objection which we have been unable to overcome.

Mr. Gemmill—Limit the number of starters.

### SEPARATING PROPOLIS FROM BEESWAX.

"When melting up beeswax how do you separate the propolis?"

Mr. Pettit—The propolis should be kept separate. I know of no other way.

Mr. Hall—The propolis and pollen will settle out of the beeswax when it is melted up.

"Has any one experience in using paraffin in making comb foundation?"

Mr. Pettit—I have had no experience.

Mr. Brown—It was sent to me as a sample used in Europe.

Mr. Lowey—I had some adulterated with it, and I want no more. I put it in sections, and it would not do.

Mr. Newton—Two years ago I received a lot of wax

adulterated with it. I tried to make it into foundation, and could not.

#### SIZE OF HIVE.

"What size of hive would you advise?"

Mr. Pettit—I have used a hive equal to the 10-frame Langstroth; it is good for comb honey with dummies. It is also a good hive for extracted honey, but probably not quite large enough. At any rate, I have placed my order for 100 12-frame Langstroth hives for next season's use.

Mr. Dickenson—This is not according to what the supply men have listed and advised for years. When men have made a study of the matter, and have 200 or 300 8-frame hives, what shall we do? Fortunately we have the 9-frame hive.

Mr. Pettit—I am always anxious to receive advice, but I must use my own judgment as to accepting it. If my queens would not fill more than 8 frames I would dispose of them and get better ones. As to using the two-story brood-chamber of Langstroth combs, I find that in a few weeks the lower brood-chamber is largely forsaken, the combs become clogged with pollen, and soon take on the appearance of a deserted house.

Mr. Hall—I am an old-fashioned bee-keeper, with an old-fashioned hive. I began, 28 years ago, with a hive equal to the 11-frame Langstroth. If I could I would add one or two more frames.

Mr. Holtermann—We follow others too much without reasoning. In five years there will be a large increase in the use of large hives.

Mr. Webster—We must have large hives to get the bees and honey.

Mr. McEvoy—I have 8, 9, and 12 frame hives, but I prefer the 9-frame.

Mr. Dickenson—It is very important in the foreign market to have clover and basswood honey separate. The large hive will mix honey.

Mr. Holtermann—I think that in the large hive kept together with a small one, it is no larger in proportion.

Mr. Dickenson—With two supers you can't keep clover and basswood separate.

Mr. Pettit—If you want to keep clover and basswood separate, you must use only one super.

Mr. Newton—A colony in a 16-frame hive will swarm as soon as an 8-frame.

Mr. Darling—I have found them to want to swarm when the brood-chamber is only two-thirds full.

Mr. Pettit—You miss it by not putting on a second super till the first one is two-thirds full. Both should be put on at beginning of the season.

#### BENEFIT OF THE HILL'S DEVICE.

"What benefit is the Hill's device on top of the frames to hold up the quilt?"

Mr. Pettit—It gives a passage from one comb to another, so that bees do not need to leave the cluster and go down under the lower edge of the comb. For outdoor wintering, with the Langstroth depth of frame, it is quite necessary. We do not use it in the cellar.

#### CARRYING EGGS FROM BROOD-CHAMBER TO SUPER.

"Will bees carry eggs from the brood-chamber to the super?"

Mr. Pettit—I don't know. I know they will carry them from comb to comb. Drone-brood in the super is probably from laying workers.

#### GETTING NEW EXTRACTING-COMBS.

"If you want a new set of extracting-combs, would you use starters or full sheets?"

Mr. Pettit—I would use full sheets.

Mr. Newton—Messrs. Hall and Holtermann advise full sheets.

Mr. Pettit—I am not fully decided, but I believe it will pay to work into worker-combs for extracting, for various reasons.

Mr. Sibbald would let them build combs from starters. They naturally secrete wax which should not be wasted.

Mr. Pettit—Uncap deep while extracting. They can use extra secretion to draw out these combs.

#### WHITE CLOVER HONEY IN BARRELS.

"Where at the present time is the best market for white clover honey in barrels?"

Mr. Pettit—Wherever you can get a sale.

Mr. Sibbald—I believe there has been too much put in barrels this year.

#### MOVING BEES EARLY—TRAMP BEE-KEEPERS.

"Would it pay to move bees early in March, and place them on the summer stands?"

Mr. Pettit—Mr. Lott answered this very well in his paper. It is very important to have colonies moved to an out-yard early, to get the spring flow.

"What shall we do with tramp bee-keepers?"

Mr. Pettit—I have not met any. Farmers are learning the value of bees to alsike. I had a man come to me early in alsike bloom and insist on me bringing bees to his place, 14 miles away, for the benefit of the seed in his alsike. This was done, the farmer got more alsike seed than his neighbors, and the bees got a good crop of honey.

#### REPORT OF THE HONEY EXCHANGE COMMITTEE.

A report of the Ontario Honey Exchange was presented as follows by Mr. H. G. Sibbald:

The Honey Exchange Committee appointed at Barrie, held a meeting in the office of G. C. Creelman, in April; present, Messrs. Newton, Chrysler, Couse, and Sibbald.

It was decided to sell the honey of members through a reliable wholesale house, to collect reports, and advise members as to the probable crop and prices. All members to have the right to sell at wholesale and retail, as per circular issued to members.

The committee met again at Woodstock, Aug. 15. Grading committee also present. Decided that price of honey in new, clean, 60-pound tins should be 7½ cents, f. o. b., Toronto. Comb honey \$1.65 to \$2.00.

Grading rules were drafted. A committee of the president and secretary was appointed to confer with Rutherford & Marshall with a view to their handling honey for members. We were led to believe that all would be agreeable, but only one member of the firm had been consulted, and when the matter was talked over by them together they decided not to handle the honey. They said that members had already sold to firms in Toronto contrary to their understanding of our proposal, viz.: To give them sole agency for members' product in Toronto and other places named in prospectus to them.

While we failed to handle the honey this season, your committee have done considerable work collecting and distributing reports, which was an object of the committee. Grading rules were also drafted, which ought to be of lasting benefit to bee-keepers. Our membership increased to 62, and after paying the traveling expenses of the committee, and printing, a balance of \$7.65 remains.

H. G. SIBBALD.

Mr. Sibbald—The exchange failed to handle honey this year because bee-keepers held off from joining until they would see whether it was going to pay or not. Some members did not like the rules; they thought they should be allowed to sell all they could in Toronto, then place the balance in the hands of the firm that had agreed to handle our honey.

Mr. Gemmill—We must co-operate.

Mr. Morley Pettit stated that while the committee had done a good work—as good as could be expected for the first year—the crop reports would have been much more valuable had they come earlier in the season. The large number of small producers makes it exceedingly difficult for an exchange to operate and control prices. In any case it can do nothing without money. A stock company seems to be the only solution of the difficulty.

Mr. Wm. Couse agreed with Mr. Pettit, that we must have money. The committee has done good work in making reports, and grading rules, and the prices set were not far off from those at present prevailing.

Messrs. Morrison and Lowey moved that the grading rules, as formulated by the Honey Exchange, be printed in the annual report of the convention. Carried.

Mr. Holtermann spoke at some length on the work of the Honey Exchange. He said that the committee had done good work in fixing grading rules, as there was here a great need. But it was necessary to have an incorporated limited company. He doubted if we could ever control the output on account of the great number of small producers, and the almost universal distribution of honey-plants. We often hear, he said, of the Citrus Fruit Exchange, but there is no comparison. Citrus fruit is grown in a comparatively small area of country, but honey can be produced wherever the sun shines and flowers bloom. Dairymen have not tried to fix prices, neither have fruit-growers, nor poultry men—they have the best men in the country to help them to produce a good article, and to open up the market. They



have aimed at organization in production. A better product brings a better market. The government has helped the fruit-growers, etc., in producing and marketing a good article. The government has shown itself willing and anxious to help us in so far as we show a disposition to help ourselves. We must be very particular to market only a first-class article, properly graded.

Mr. Dickenson found no difficulty in marketing good honey without government assistance.

Mr. Holtermann—How can we keep poor honey out of the market without government help? Other associations ask and receive help. We pay taxes, and should have help as well as they.

Mr. Dickenson—We can not be put into the same class with fruit-men, because the country is so easily overstocked with bees.

Mr. Lott—We want a system of inspection, as in the case of government inspection of fruits. We should have a government expert to inspect all honey before it is shipped, to see that no unripe or otherwise inferior honey goes on the market.

J. L. Byer—I agree with what has been said. Government supervision has made, and keeps up, the apple market. The same would apply to honey. Then we want a government official to see after the market. We don't know where to ship our honey—don't know the names of firms who would handle it. Mr. Holtermann's criticism is good. If the government does not appoint an inspector of honey, who will? The Dominion government is the place to get it. They could also help in equalizing the distribution of honey throughout the Province.

W. J. Brown—I believe Prof. Robertson, of Ontario Agricultural College, offered, some years ago, to procure a market for us.

Mr. Holtermann—If you want to sell honey you must send a man who knows all about honey. Don't send a dry goods man to sell groceries, etc.

Speaking of quality of honey, Mr. Dickenson said that he found the best honey in the upper of two supers where no fresh honey would have been put in for a few days. He mentioned the paper of Mr. McIntyre, of California, read at the National convention, as being of great value to him. He agreed with Mr. McIntyre, that under ordinary conditions honey need not be more than half capped to be of good quality. As to marketing, every man should establish his own name, and always send a good article; then he need have no fear of harm from poor honey sold by others.

Mr. Darling—Every man has a monopoly of his own name; no one can steal that.

Mr. Holtermann—It is a strange business principle to say that the price of your goods is not affected by other goods. When an inferior honey is there to sell at a lower price, it is bound to affect your price.

Mr. Morrison—As to the advisability of getting government assistance, the government looks after the commerce of the country, forms tariff laws, etc.; we use a government grant. Why not let them help get a market?

Mr. McEvoy thought that the price of cheap honey would have no effect on that of higher grades.

Mr. Fixter advised sending honey to the Ottawa Fruit Exchange.

Mr. Darling had seen them selling goods at auction by the Ottawa Fruit Exchange, and did not think much of the idea.

Mr. Lowey would not advise shipping to them, any more than to any other commission house. There is much loss incurred by the ignorance of these men in storing and caring for honey.

Mr. Miller thought the government had as much right to assist us as it had to assist any other producers in the country. Appoint a responsible and capable man to inspect the honey here, and have a man in the foreign market. He saw no need for capital; they should just get the money and send it to the man who had produced the honey. If poor honey were sent in by any member, return it to him, and it would probably not occur again.

Mr. Chrysler—It would be necessary to incorporate and have money.

Mr. Pettit—The most important work that can be done along this line at present is to collect reports, say three or four times—first when the bees come out of winter quarters, as to their condition; second, at the beginning of clover, as to the condition of bees at that time; third, at the end of the white honey-flow; and fourth, from those who produce fall honey, when that is harvested.

It was moved by Mr. Sibbald, and seconded by Mr. Byer, that a committee be appointed by the Association, to

collect reports of the honey crop, etc., and distribute the same to members; also to approach the Department of Agriculture at Ottawa, with a view to establishing a market in England, with power to arrange for a system of grading by special act of parliament. Carried.

It was moved by B. O. Lott, and seconded by C. W. Post, that a committee be appointed to revise the by-laws of the Association, the committee to consist of Messrs. Sparling, Holtermann, Armstrong, Chrysler, Couse, Scott, and Post. Carried.

(Continued next week.)

## Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

### White Nougat Candy of Marseilles.

Boil over a very mild fire 2 pounds of choice honey (white preferable), and keep moving it with a wooden stick. After one hour of boiling, mix with the honey, still on the fire, the whites of 6 eggs beaten thick. When the mixture has become brittle (which you can tell by dropping some into cold water), draw the vessel from the fire and add immediately 1½ pounds of burnt sugar (broken sugar). Keep agitating until the whole mass will have lost part of its heat. Now add 6 pounds of peeled, dried and hot almonds; also 1 pound of peanuts (peeled, too). Flavor with vanilla or lemon.

Now spread over a table a layer of wafers (about 1x2 feet), and over it pour the mixture, still hot, so as to make it about ½ inch thick. Over this again spread another layer of wafers. Place on top a solid board, heavily laden. After a quarter of an hour, divide the large cake into smaller ones, wrap and pack carefully in paraffin paper or other suitable covering.—(From Diction-universal of Larousse, art nougat.)

Quebec, Canada.

H. DUPRET.

We are under obligation again to one of the brothers—really we can't get along very well without their help, many times—for helping us out in the candy business. France is the original home of nougat candy, and Mr. Dupret is evidently a Frenchman, so the recipe may be relied on. Just what is meant by "wafer" is a question. Probably those weened affairs like miniature cookies made very thin. But I think the nougat candy formerly sold in this country was made without any wafers.

### Successes and Failures—Wintering.

I have been intending for a long time to write you of our success, once again, with the bees. For several years we have not had a crop of honey, some years the failure being caused by spraying apple-trees while in bloom. The bees would, apparently, be in good condition—hives full of bees—but suddenly, almost, the brood would be left unprotected, as if the bees had all swarmed, while we knew none had cast a swarm.

Failure of clover to bloom the last few years, caused by winter-killing, has been our latest failure; also cool weather in June, just when the clover ought to be yielding honey, if we get it at all.

The past season was abundant in clover and other flowers. I think I never saw honey come in more abundantly for 6 weeks; such swarming! I suspect we may always expect swarming when honey is coming in freely—such has been our experience when running colonies for comb honey. The colonies run for extracted we generally choose from the weakest ones, and build them up from the swarming colonies, so we do not get so many swarms from those until after they have built up, and we take away their full combs to extract, or give them sections and then they are almost sure to swarm; but extracted honey does not sell so readily as comb, and then it seems to me to be about as much trouble to get as comb.

I have been so driven with work that I failed to finish this letter, commenced over a month ago. Our bees have, I think, wintered fairly well, only 2 colonies dead out 80, and they were queenless; but it is too early to know how



they will come out, for there are lots of dead bees thrown out of the hives, but they fly fairly strong, and have a great abundance of honey, but our neighbor's bees that were packed in chaff—I should think many colonies would be dead.

MRS. L. C. AXTELL.

Warren Co., Ill.

In former years Mrs. Axtell was noted for large crops of honey, and it must have been somewhat trying to have a series of years of failure. Her many friends will be glad to know that the tide has again turned, and we may hope that 1904 will be with her, as with many others, a repetition of 1903.

### Honey for Chapped Skin.

Honey is good for chaps in general, and in Praktischer Wegweiser it is specially commended for chapped hands and lips. A tablespoonful of honey in a quart of warm water, applied to the afflicted surface, smoothes and softens the skin very pleasantly.

### Contracting or Uniting Colonies—Which?

Last fall I packed 35 colonies on the summer stands. The last week in March we had good weather, so I gave my bees a flight. With a trembling heart I watched to see how many colonies were still living. (I have especially taken up bees to earn something, since my husband lost his arm in the manufactory.) To my great joy all my colonies were living, not one lost. The weather was again fine the next day, so that I could take away the bottom-boards and shove others under; likewise renew the cushions that were too damp. Thereby, however, I found that many colonies were weak.

Please advise me: Is it advisable to contract colonies with bees covering two or three frames so that they may yet prosper? Or, is it better to unite two colonies, so that from the 35 I may have perhaps 18 or 20?

Cook Co., Ill.

MRS. ANNA WECKERLE.

Don't be in too much of a hurry about uniting. Sometimes a colony with only enough bees in early spring to cover two or three frames, yet having a good queen, will pick up wonderfully as the weather becomes warmer. In the fall it is well to unite weak colonies, but in the spring nurse them up good and warm, and give them a chance to see what they will do.

### Manicure Scissors for Clipping Queens' Wings—Honey in Brown Bread.

We often read articles in the Bee Journal and other bee-papers about clipping queen's wings, and it seems to us that people make hard work of it.

We began with one colony 5 years ago, and now we have 26. We have never lost a queen from clipping, and as we do not touch our fingers to the queen, there is no odor left on her to excite the bees to injure her. Perhaps others would like to try our way, which is to use a pair of "manicure scissors." It is usually easy to slip one blade under the wings and quickly clip them as soon as the queen is seen on a frame, but if she does get to running about, just watch your chance, and be quick when she does stop for a moment.

The long, slender, curved manicure scissors prevent any possibility of the points touching the queen.

Have any of the sisters ever tried using honey instead of molasses in making brown bread? Just try it, and see how good it is. Here is the recipe:

#### HONEY BROWN BREAD.

One cup corn-meal; one cup rye-meal; one cup sour-milk;  $\frac{1}{2}$  (or less) cup of honey; a teaspoonful of salt, and a teaspoonful of soda. Steam 4 hours, then dry in the oven 15 minutes.

From a sister who finds the bees fascinating to work with.

A. R. JACOBS.

Worcester Co., Mass., March 20.

*Amerikanische Bienenzucht*, by Hans Buschbauer, is a bee-keeper's handbook of 138 pages, which is just what our German friends will want. It is fully illustrated, and neatly bound in cloth. Price, postpaid, \$1.00; or with the American Bee Journal one year—both for \$1.75. Address all orders to this office.

## Hasty's Afterthoughts

The "Old Reliable" seen through New and Unreliable Glasses.  
By E. E. HASTY, Sta. B Rural, Toledo, Ohio.

#### THICK OR THIN TOP-BARS.

As to whether to use thick top-bars or not, about 17 experts wanted half an inch thick or thicker, to 11 who wanted their bars less than a half inch. Few, if any, seemed to want the extra-thick bars of an inch or more. Page 132.

#### SCRAPING AND GRADING SECTION HONEY.

I think Frank Rauchfuss is sound where he finds it poor tactics to scrape sections and case them at the same time. First, get a good pile of each grade, then take a case and devote your mind wholly to filling it just right. Doing it the other way you are manifestly sure of not getting the best casing possible, and somewhat liable to waste time by dribblets, until the one operation takes more time than the two—leaving no advantage of any sort. Page 132.

#### DRONES AND SWARMING.

At the Northwestern, when the relation of drones to swarming was up, Pres. York didn't ask, How many think the presence of many drones *decreases* the swarming tendency? I think that is at least a proper question to ask. If I'm right, colonies devoted to rearing quantities of fine drones usually refrain from swarming. And I feel pretty strongly that Mr. Longsdon is mistaken where he says that you can make a disinclined colony swarm by putting in drone-comb. Behold my brand-new quack-scheme! To prevent the swarming of a colony that has begun to contemplate it, introduce a large excess of drones to them! Whether they soon go to work and kill them off, or whether they keep them in a disgusted sort of way, I quack it that swarming will be given up for the time being. Page 137.

#### MATING OF SUPERSEDEDURE QUEEN.

Instead of saying, "Mating of a Superseded Queen" (caption, page 137), say Mating of a Supersedure Queen. That term can be taken as meaning the young queen, while "superseded queen" must necessarily be the old one. By fault of members, or reporter, or somebody, the language of the paragraph is phenomenally slipshod.

#### REPORTING THE HONEY-CROP.

As to the long and lively discussion of the question, whether we keep still about the facts when there's an extra-big crop, I think Mr. Wilcox got in the most important idea. Large dealers will know before they buy. Better for us, on the whole, that they know honestly and squarely from headquarters than that they discover that we are determined not to tell, and proceed to get at the facts in round-about ways.

Mr. Starkey is right, that there is a difference between reporting to dealers, and filling the ears of the public. General and miscellaneous cackling before the public—well, even the higher order of well-regulated hen knows better than to cackle by her own nest—silently scoots away to a distant locality and does the cackling there. But this Afterthinker believes that the public have *some* rights in the matter also—perhaps a little hard to determine exactly what they are. Pages 139-141.

#### EXACT POUND SECTIONS OF HONEY.

And so the innocent folks at the fair hadn't it in their hearts to doubt that the sections had an exact pound—but they really wanted to know how the bees knew when they had got just a pound in. There's childlike faith for you. Surely, we would do better to hold it than to dissipate it. Page 145.

#### "TALKING BEES" ON CITY STREETS.

Mr. Moore, at the Northwestern, told of a very pleasant way of advertising bees and honey. Don't remember to have read of exactly the same style before. Modify the observatory hive into a closed grip with glass sides, and holding two frames of brood and bees. Then go on the street of a city with it and talk bees—like Socrates at Athens talked religion. Mr. Moore found it very enjoyable—and liable to block the street if he staid too long in one place. Page 145.

## PATIENCE, TALK AND WAITING—ESSENTIALS TO BEE-INSPECTORSHIP.

Yes, Mr. Hutchinson, three patient visits, lots of enlightening talk, and print, and waiting—and at last the man himself take hold and help clean up the foul brood—is better than “enforcing the law” as Old Adam within would say for us to do. “And fully as many thorns as roses” in ridding a territory of foul brood. Yes, we can find ourselves admitting that without argument. Page 146.

## Dr. Miller's Answers

Send Questions either to the office of the American Bee Journal, or to Dr. C. C. Miller, Marengo, Ill.

### When to Put Supers On.

When is the the proper time to put on supers? or how can you tell when to put them on? MISSOURI.

ANSWER.—When you see bits of white wax on the upper parts of combs it is high time supers were on. If white clover is your first surplus, put on sections as soon as it begins to bloom.

### The Foul Brood Microbe.

Are scientists entirely agreed that foul brood is an animal growth as mentioned on page 230? SUBSCRIBER.

ANSWER.—No; I don't believe Mr. Alkin thinks so, as is shown later on by his speaking of the spore of foul brood bacilli as a seed, and comparing *Bacillus alvei* to a green growing plant.

### Bees Breeding in January.

I would like to know how it is that my bees having brood in January. Some came out all right, while only one died on account of having zero weather. All the neighbor's bees died on the summer stands, while I lost one out of 21. I consider myself quite lucky. ILLINOIS.

ANSWER.—Very likely there is brood in your hives in January oftener than you suppose, as it is not such an unusual thing. It is possible that the unusually severe weather had something to do with it, for the colder the weather the warmer it is in the center of the brood-nest, just as the colder the weather the hotter the fires in your stoves.

### Queens Not Obligated to Lay a Certain Number of Drone-Eggs.

Is it true that the queen is obliged to lay a certain number of drone-eggs, no matter what the bee-keeper does, as seems to be taught on page 211? SUBSCRIBER.

ANSWER.—The remark on page 211 was evidently made by a correspondent of the British Bee Journal, and it is a little strange that it should have been allowed the endorsement of silence in both the British and the American Journal, for I feel confident that neither of said journals believe in any such a doctrine. Full sheets of worker-comb given to a swarm will make sure the queen shall lay a very much smaller number of drone-eggs than she would if no foundation were given. A queen may be restricted to laying of a small number of drone-eggs, or she may be induced to lay a good many thousand.

### Sectionless Supers of Honey—Entrance Feeding.

1. I have a colony of bees which were hived two years ago in a two-story hive, but instead of having them in the brood-chamber they put on the two supers without any sections in, so the bees began to build comb in the top, and now it is full of honey from bottom to top. What would you do with this? How would it do to smoke them down in the bottom and remove the supers? What would I find in the supers, brood or honey? If so, what time in the spring should I do it? It is not a chaff hive.

2. I am feeding a few colonies of bees that I have in the cellar, by placing a little liquid honey in a tin trough and shoving it in the entrance. They seem to take away a great deal of honey from this trough. Is this way of feeding them all right? I don't know anything about a bee-feeder. IOWA.

ANSWERS.—1. They have probably consumed quite a little through the winter, and it is possible that enough has been emptied out so that part or all of the brood-nest is above. You might raise the upper part and find out where the brood-nest is. Then leave on the stand the

part that contains the brood-nest, whether it be the upper or the lower. If it be the upper, and you want combs in better shape, wait till three weeks after swarming and then transfer, in the meantime giving the bees a super, or supers, to store in. If, upon examination, you find the brood below, and the upper part pretty well filled with honey, you might leave it till entirely filled, and then take the honey.

2. The less bees are disturbed in the cellar the better, and unless you think they are in actual need don't feed.

### Spring Stimulative Feeding.

I want information in regard to feeding bees in the spring, so as to stimulate brood-rearing. How shall I proceed, especially when to commence, and what precautions to use? OHIO.

ANSWER.—Without a good deal of experience you may do more harm than good. Don't begin till bees fly freely; feed about half a pound diluted honey or a syrup of sugar and water half and half—the honey is better. Feed in the evening for fear of robbing. Every other evening will do. It will do no good to feed when the bees can get even a moderate amount among the flowers.

### Getting Into Bee-Keeping Again.

On page 182, I notice your article on “Bill of Rights to Protect Bee-Keepers in Priority of Location.” I am a reader of the American Bee Journal, and an ex-bee keeper, as it were. How am I to get into bee-keeping honorably, and without intruding on the rights of anyone? ILLINOIS.

ANSWER.—One way is to buy out some one already located. Another way is to settle where the ground is not already occupied. Start right where you now are, if the field is not already occupied. It ought to be so arranged that any one could start in bee-keeping just as he can at farming, with no doubts whatever as to the matter of honor and rights. Pity that it is not so.

### Position of Hives—Spring Feeding, Etc.

1. I have only 3 colonies of bees, and all in home-made boxes. The other day I found the hive empty of bees, but the box half full of honey. The bees were there about two weeks ago. I suppose they lost their queen. I want to get frame hives this summer.

2. Is it necessary to stand them up off of the ground?

3. Which are the most used, and the best hive?

4. Is it necessary to feed bees in the spring? If so, at what time?

I have had bees for some years, but have not attended to them as I should. I had to kill them when I wanted honey. I will have a great deal to learn about bees in order to make them pay. MISSOURI.

ANSWERS.—1. It isn't at all certain that the queen was lost. Hundreds of colonies with good queens have died during the past few weeks.

2. In most localities there is no need to raise hives any higher than enough to keep from rotting the bottom-boards, say 4 to 6 inches.

3. Plain dovetailed hives are probably as much used as any, and as good.

4. It is not necessary to feed them if they have abundance of stores. If they have not, they can be fed any time they are short of stores.

### Noisy Colony—Other Questions.

1. What is the cause of a noisy colony when the rest are quiet? The colony is dead now. It gave me only one super of honey, and they stored almost all of it before they swarmed. They crowded the brood-nest. The queen was all right, as far as I could tell.

2. How would it be to divide the brood, and give each a laying queen?

3. How many frames does the average colony occupy?

4. What percent of your queens occupy more than 8-frames? (I have seen a two-story Danzenbaker hive filled; also her daughter did the same.)

5. Does a queen usually reproduce herself? MINNESOTA.

ANSWERS.—1. Possibly queenless; possibly something else?

2. Unless the colony be very strong; indeed it would be better to keep all together till later.

3. Perhaps six; some only half that, and some twice as many.

4. I cannot tell; none of them are allowed to have more than 8 frames while working on sections, but if given a fair chance probably few of them would stop at 8, and some would occupy 16 or more.

5. No.

### Trying to Avoid Trouble.

I have 59 colonies which are heavy with honey, but the severe winter left them, or most of them, not so strong in bees. I have lost 4 colonies this winter.

I live in town and am afraid I will have trouble with my near neighbor about the bees. I have no neighbors on the west, it being a public highway, but on the north lives my near neighbor, and my garden and also an alley are between. Now, I have room for 150 colonies by setting a row along the alley, facing south, over near my neighbor,



who says my bees are a nuisance, and that they bothered her last summer; that the bees were at her well thick, and came into her house. But they never got stung. Now, if I can keep my bees at home this summer I will move them in the country next spring. The alley between my neighbor's place is not used much; there are other ways to drive without going through near my bees. Now, if a team of sweaty horses were driven through the alley, and they got stung, would I be liable for damages? I do not want any trouble, but I am so situated that I can hardly better myself this spring.

ILLINOIS.

ANSWER.—That alley being a public thoroughfare, no matter how little it is traveled, you are responsible for damages if your bees sting horses or people passing by. A close fence six feet high would help matters very much. You can do much to keep your bees away from your neighbor's well by providing one or more convenient drinking-places nearer home, getting them started early in the season, for once a habit of going to a certain drinking-place is formed they will continue to patronize that place throughout the season. An occasional present of honey to your neighbor will do no little toward making her less observant of the intruding bees.

### Nucleus Method of Incease.

On page 170, in answer to "Illinois," in further explanation of how you increased your 24 colonies to 184 last year, will you kindly give the following additional information:

1. How early in the season, in the vicinity of Chicago, would it be usually safe to draw brood and bees from strong colonies and put in a pile?
2. Would it be as satisfactory to make the nuclei at the time of drawing the brood and bees from the strong colonies? If not, why?
3. If making a pile is the best way, is it necessary to leave this pile for 9 or 10 days before breaking it up into nuclei?
4. From the fact that you visited the Hastings apiary only once in 9 or 10 days, I suppose you did not feed any of the nuclei. Would it help to feed a little?
5. In cases where you gave the nuclei queens, were they virgins or laying queens? If the latter, did you just run them in, or had they to be introduced in cages and the bees allowed to liberate them?

ILLINOIS.

ANSWERS.—1. I don't know. This year it may be two or more weeks earlier or later than next year. Seasons differ greatly. It may

be somewhat safe to say, any time after apple-bloom when the colonies are strong enough, say when each colony has five or more frames of brood.

2. No; you take from the pile queenless bees which will stay better where put, and are ready to accept anything given to them in the way of queen or queen-cell.

3. It is more convenient for an out-apiary, although a modification might work as well in the home apiary.

4. Hardly, in a good honey-flow; with no honey coming in it would be very desirable.

5. Both ways to both questions. Laying queens were preferred if on hand; if not, virgins or cells; sometimes run in, sometimes caged, allowing the bees to liberate.

### What Caused the Bees to Die?—Transferring—Chilled Brood.

1. I am a beginner, and have 9 colonies of bees; 3 colonies died, although they had enough in every hive; the comb was moldy. We winter them on the summer stands. What was the cause of their dying? It was 17 degrees below zero a good many days. Do you think that was the cause?

2. Next winter I am going to put chaff around the outside, and shavings in the super. Do you think that is better than putting blankets over them.

3. I am going to transfer a colony from a box-hive to one with frames. When is the best time?

4. What is the lowest temperature they can hatch young bees?

5. In case of chilled brood will they work the dead larvae out, or will they leave them in the cells? There were some dead larvae in the colonies that died. I don't think it was foul brood, as it did not have any smell.

ILLINOIS.

ANSWERS.—1. Yes, the bees probably starved with plenty of honey in the hive, because the cold continued so many days severe enough to keep them from leaving the cluster to get a fresh supply.

2. Blankets ought to be as good as chaff, or better, if enough of them, but chaff ought to be cheaper.

3. 21 days after swarming.

4. I don't know; with the thermometer away below zero they can have it quite warm in the center of the cluster.

5. They will clean up the cells all right.

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IN 1861  
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BEE PAPER  
IN AMERICA

# BEE JOURNAL

PUBLISHED WEEKLY BY  
**GEORGE W. YORK & COMPANY**  
334 Dearborn Street, Chicago, Ill.

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- 1st.—To promote the interests of its members.
- 2d.—To protect and defend its members in their lawful rights.
- 3d.—To enforce laws against the adulteration of honey.

Annual Membership Dues, \$1.00.

General Manager and Treasurer—  
N. E. FRANCE, Platteville, Wis.

If more convenient, Dues may be sent to the publishers of the American Bee Journal.

Please mention Bee Journal  
when writing Advertisers.

### FROM MANY FIELDS

#### Flavors of Honey.

On page 757 (1903) the Editor says: "Eucalyptus honey is delicious and of excellent flavor," etc. On page 106 you ask for more witnesses. In Southern California it is not considered a desirable table honey. For myself I do not object to honey flavored with eucalyptus, say about 5 percent.

On page 106, Mr. Hasty says: "Did we not years ago have samples of orange honey similarly too good?" Intimating that orange honey is not good honey. Orange honey here ranks with the best of honeys, will compare favorably with sage and white honey.

I do not say this to get up an argument as to which is the best honey. My experience is that the likes and dislikes of the flavor of honey, as well as almost anything else, are mostly due to the cultivation of taste. The worst feature here is, we do not get a great amount of surplus from the orange, as it blooms in late winter and very early spring.

J. W. FERREE.

Los Angeles Co., Calif., Feb. 15.

#### A Defense of the Sisterhood.

MY DEAR MR. HASTY:—I beg to ask you why you chose the part in the "Hyde Play" of a character so resentful, and who when disturbed by a discord or an untimely march played, forgets that he is well-bred and says some things that merit regret, and is prone to be too personal in a way that never does any good? I ask, how could you fancy yourself the right one in the right position to don such a character? (Pages 8 and 71, respectively.)

Kindly, Mr. Hasty, in the name of sisterhood, never again apply the name *critter* or *critters* to the women of our country. In kind remembrance of mother, companion and daughter, I say this.

How grand that you didn't gratify "Ne-

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GEM INCUBATOR CO., BOX 52, DAYTON, OHIO

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braska's" desire for more witticism on "critter ballads" (page 73). You have merited respect. He undoubtedly is good-natured and jovial, and only regarded the affair as a tall joke.

It is very probable that a great many of us didn't like the "the tone" of the engravings you have mentioned, but it pleased our good editor, Mr. York, to display them, and to give Mr. and Mrs. Hyde such an introduction to the bee-world that would seem intended to bound them on to sudden fame.

Now, if a part of what was said seemed a little out of order, and space used unnecessarily, why wouldn't it be better to make known our grievances in kind sentences which we believe to voice the thought of the greatest number unbiasedly interested, and Mr. York most certainly would gladly publish the same for us?

Let us be proud that most bee-keepers seem to be so unbiased, pious, and liberal-hearted with each other.

Have you every heard the story of the venerable old Tree who was so kindly advising the Buckwheat when a storm was at hand, to do as the grasses and flowers were doing—to close its flowers and bow its head? But the Buckwheat, in its haughty pride would not, thinking maybe it would be wiser for the others to follow its example. The storm raged, and the good old Tree observed from time to time, and saw the dear little Buckwheat vainly trying to hold up its own weak self against the great force of Nature, shafts of lightning and peal after peal of thunder that made the very earth tremble. After the storm the grasses and plants looked thankfully up to the Tree, and the flowers unfolded their beautiful colors, looking refreshed and brighter than ever. The Buckwheat was singed and blackened, which made the Tree weep, so that tears were falling from leaves which were still in humble attitude.

In this drama of life what position should we choose? Most of us, of course, to be found with the Buckwheat, flowers and grasses.

And then, certainly, all have heard of the contest between the Wind and the Sun in trying to prove which had the greater power, by each trying to cause an old gentleman to remove his great coat. The Wind in his blustering way failed. Then the Sun sent one of his warm rays down so kindly upon the man that he exclaimed, "I am melting!" and with that removed the coat.

Now, if I am "chased" I will try to escape to the venerable old Tree, and when safely in its branches learn of it.

Todd Co., Minn.

[This really belongs in the "Sisters" department, but as it is addressed to Mr. Hasty, we put it in this place.—EDITOR.]

### Many Bees Lost in Winter.

We have had the worst winter here that I have ever experienced; ten weeks of sleighing, and more coming. The mercury has hovered around zero for weeks. The bees have not had a chance to fly this winter, so you can guess about how they will come out. My 85 chaff-packed colonies are half dead, up to date. They have eaten every drop of honey in their hives. We are laying large cakes of boiled-down sugar over the frames, hoping to bring a few colonies through. As near as I can learn, there will not be 5 percent left to tell the story in Michigan; so you can see there will be a lot of long-faced bee-keepers next summer in these parts. The honey crop was a fair one last season.

ORVILLE JONES.

Ingham Co., Mich., Feb. 23.

### Bee-Culture as a Side-Issue.

Twenty years ago I purchased a pound of bees with two combs of brood, and the same year increased to 4 colonies, and also got 30 pounds of honey. I commenced the year 1898 with about 30 colonies, lost 12 or 13 from starvation that spring, and fed 400 pounds of sugar to save the rest until the white clover blossomed. During the summer I caught 11 wild swarms in my own yard. One swarm I



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caught in the Court House window, another one, that I got in June, I carried half a mile on my back through the main street. By fall I had 214 pounds of comb honey from this swarm. My bees increased to 48 colonies, and their united efforts furnished me with 3800 pounds of nice comb honey, which I sold in and around town for 12½ cents per pound. I keep my bees in a small lot in town. I have a bee-house 52 feet long, 8 feet high, and 6 and 8 feet wide, double-decked. On the north side, back of the bees, is a passage-way in which I do all the work.

I lost a number of queens on their first flight last year, caused, I think, by having the hives so close together. I always winter my bees in the cellar, and have never lost a colony except through starvation. I ventilate the cellar with a boiler-flue.

I have received queens from the East, and from the South. My dandies are from Texas, and they are hustlers. I have various strains of bees, some practically non-swarming, while others who handle their bees in the same manner have swarms year after year. I have about 300 half-finished sections stored away. What shall I do with them?

A. C. JACKMAN.

Wright Co., Iowa, Feb. 24.

### Report for Last Season.

A queen I got as a premium seemed to do well, although I got her late in June, and the honey-flow stopped the middle of July. I could not find out what her bees would do, but they are of a nice yellow-gold color. I always liked the Italians bees. I have no time for the black bees, although there are a lot of them in this part of the country; I never could handle them like the Italians. The first bees I had were blacks, but I Italianized them. I started in bee-keeping five years ago, with one colony of blacks, and I have been increasing slowly, I did not want to start in too fast. I now have 15 colonies and they are about all I can attend to with my farm work. I don't neglect the bees for all the farm work; I like it better than farming.

Here is a report of my crop: I had 11 colonies, in 1903, spring count, and got 1,000 pounds of comb honey, 400 pounds extracted, and increased to 15 colonies, which I put into the cellar last November. They are wintering in fine shape. I expect a good crop next season.

We have had a cold winter in northern Wisconsin.

The American Bee Journal helped me a great deal; it is well worth \$1.00 a year. Some of my neighbors keep bees, but they don't take any bee-paper, and I cannot get them to subscribe, either; and they do not get any crop of honey from their bees. I intend to keep more bees in the future.

EDWARD DUAX.

Chippewa Co., Wis., Feb. 26.

### Races and Sizes of Bees—Bee-Keeping in Mississippi.

In answer to Mr. John Kennedy, of Adams Co., Miss., in the Bee Journal of December 31, 1903, I would say that when I commenced bee-keeping, in 1874, for many years I had only the black bee. There were no other kinds in the county. I then introduced two other kinds, a large brown bee and a very black bee of smaller size. The latter were very vicious. One colony was so combative that a Cyprain could not surpass them. I was compelled to kill their queen. The brown bees were remarkably gentle.

It is often remarked by bee-keepers here, that with an apiary of pure Italians they will gradually breed away all their yellow marks, as I noticed in an apiary in Arkansas, owned by a bee-keeper from the North, who had none but Italians. One cause, in my opinion, was mating with native drones from the forest.

In regard to size of bees, I have the three-banded, long-tongued Italians, that are even larger than our brown bees, and from their size are, therefore, longer tongued. My Golden Italians, Holy Lands, and Cyprains are smaller, and the Carniolans are about the same. The size of Mr. Kennedy's bees may result from the strain he purchased. I can

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1 "New Model" Solar Wax-Extractor (glass 26x60 in.).....	8.00.
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100 New L. 10 fr. Dovetailed Hives (each consisting of a Body, Cover and Bottom-Board—all nailed) .....	95c each.

If you order Combs and Hives, the Combs can be put right into the hives and shipped in that way. All the above can be shipped promptly, so long as they last. First come, first served. What do YOU want out of the lot? or do you want it all? (No order filled for less than \$5.00 from the above list.) Also **BEES AND QUEENS**, and Stanley Queen Incubator. Send for free Circular.

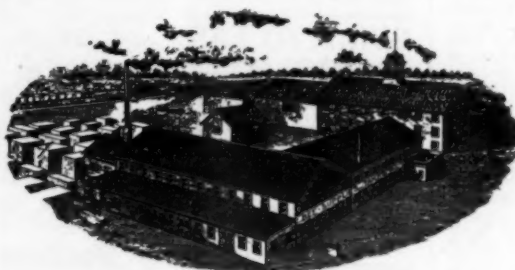
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see no difference in the honey-gathering qualities of the different kinds of bees, and for my use I prefer the native brown, and next the large, three-banded, long-tongued Italians. I also like the Carniolans for their gentleness, although they are somewhat over-rated.

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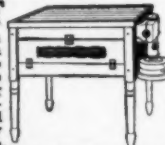
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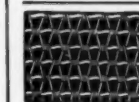
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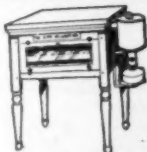
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was destroyed by last year's overflow. Cow-peas sown thick are best for the hills, as they shade the ground perfectly and keep it moist, thus giving large yields of nectar. Mellilot sown thick may prove valuable. All in all, I would think the hills unfit for bee-culture, except in some extensive wooded creek-bottom. I cannot account for the difference in seasons in the hills of Adams Country, and our alluvial delta country, where we have only dry spells in August and rarely in September. We have great yields of honey in September and October from smartweed, golden-rod, swamp boneset, and asters.

Cedar or any other bark burns out too quickly. Hard wood is preferable for smoking to anything else.

O. M. BLANTON, M. D.

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**CONVENTION NOTICES.**

**Connecticut.**—The Connecticut Bee-Keepers' Association hold their spring meeting in the Capitol at Hartford, April 28, 1904, beginning at 10 a.m. All bee-keepers and their friends are cordially invited to attend. A question-box will be opened, and several interesting essays presented. E. E. SMITH, Cor. Sec.

Watertown, Wis.

**Pennsylvania.**—At a meeting of the Muncy Valley Bee-Keepers' Association, held Saturday, March 19, a resolution was passed authorizing the secretary to publish a call for a convention of the bee-keepers of Pennsylvania to be held in the Court House at Williamsport, April 12, 1904, at 1:30 p.m., for the purpose of organizing a State Bee-Keepers' Association, and also for taking such measures as may be deemed necessary to secure legislation for the protection of bee-keeping interests, and the prevention and cure of bee diseases.

The importance of this matter is so great that every bee-keeper who sees this notice is urged to interest himself in this movement and attend the meeting, if possible.

By order of the Muncy Valley Bee-Keepers' Association. D. L. WOODS, Sec.  
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**HONEY AND BEESWAX****MARKET QUOTATIONS**

**CHICAGO, March 8.**—It is difficult to get more than 12c per pound for any lot of white comb honey, with sales chiefly at 11c; even at this price it does not work off as fast as owners wish it would. Selections in the most desirable grades bring a little higher price in small quantities: off grades sell at 10c per pound less. Extracted honey plentiful and slow of sale; white brings 6½c; amber, 5½c, according to quality and style of package. Beeswax active at 30c. R. A. BURNETT & CO.

**CINCINNATI, March 19.**—The honey market continues to be dull, and if anything the prices on comb honey are lower; concessions are made on bigger lots. I quote: fancy white comb from 12½@14c. Sales on extracted are made at the following prices: Amber, in barrels, 5½@5¾c; in cans, ½c more; alfalfa, water-white, 6½@6¾c; strictly white clover, for extra fancy, 7½@8c. Beeswax, 30c. C. H. W. WEBER.

**PHILADELPHIA, March 21.**—The season for selling honey has been prolonged on account of the cold weather, which has certainly been very fortunate for the bee-keeper, as there never was as much honey shipped in so late in the season to be disposed of. It has broken the price quite considerable, but there is still quite a demand, which otherwise would have fallen off. We quote: Fancy white comb, 13@14c; No. 1, 12c; amber and buckwheat, 9@10c. Extracted, white, 7@8c; amber, 6@7c. Beeswax in good demand, 31c. We are producers of honey and do not handle on commission. WM. A. SELSER.

**CINCINNATI, Mar. 4.**—The demand for honey is brighter than it has been in the past 60 days. We continue to offer amber extracted in barrels at 5½@6½c, according to quality. White clover extracted is a drag on the market at 6½@8½c in barrels and cans. Comb honey seems to be reviving at 13½@15c for fancy. Beeswax, 30c. THE FRED W. MUTH CO.

**ALBANY, N. Y., Mar. 25.**—Honey market dull and getting late; demand falling off for comb honey now. So much comb honey is out of condition, being candied hard in the combs makes most unsalable. We quote: 8@12c; nominal now. Extracted, white, 6½@7c; amber, 6@6½c; buckwheat, 5@5½c. Beeswax, 28@30c. H. R. WRIGHT.

**BOSTON, March 22.**—There is nothing new to note, either regarding the condition of our honey market or prices. The demand is naturally not so heavy as it was, owing to the warmer weather and the near approach of the maple sugar season. Prices remain same as before, which are as follows: White in glass-front cases at 16c; No. 1, at 15c. Supply is ample, and demand light at this time. Extracted, water-white, 8c; light amber, 7@8c; with but little call for dark Florida. BLAKE, SCOTT & LEE.

**KANSAS CITY, March 22.**—The demand for honey, contrary to the usual market conditions at this time of the year, is slow, and only very low prices will induce the trade to buy in large quantities. Fancy comb honey is selling at \$2.25; No. 1, from \$2.00 to \$2.15; amber honey and combs that are not well filled are selling at just what prices the trade will pay. Extracted honey is moving very slowly; there is very little demand for amber, and white is selling at 6@6½c. No demand for barreled honey. C. C. CLEMONS & CO.

**NEW YORK, March 7.**—The market on comb honey is decidedly dull. There is some demand for white honey, but prices are ruling rather low. We quote fancy at 13@14c; No. 1, at 12c; amber, at 11c, and in round lots even these prices have to be shaded in order to effect sales. There is no demand at all for dark and buckwheat comb honey, and it looks as if some of it would have to be carried over. We quote nominally at 9@10c per pound.

There is a fair demand for extracted honey, at irregular prices, fancy white bringing 6½@7c; light amber, 5½@6c; other grades, 5@5½c; and Southern, common to fair, 50@55c per gallon. Beeswax firm at from 29@30c.

HILDRETH & SORLEEN.

**SAN FRANCISCO, March 16.**—White comb, 1-lb. frames, 11½@12c; amber, 8@10c. Extracted, white, 5½@5¾c; light amber, 4½@4¾c; amber, 3½@4¾c; dark amber, 3¼@3¾c. Beeswax, good to choice, light, 27½@29c; dark, 25@26c.

Market is very quiet. Offerings are of fairly liberal proportions for this late date in the season. Quotations remain about as previously noted, but the extreme figures quoted are based mainly on the views of holders.

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The picture shown herewith is a  
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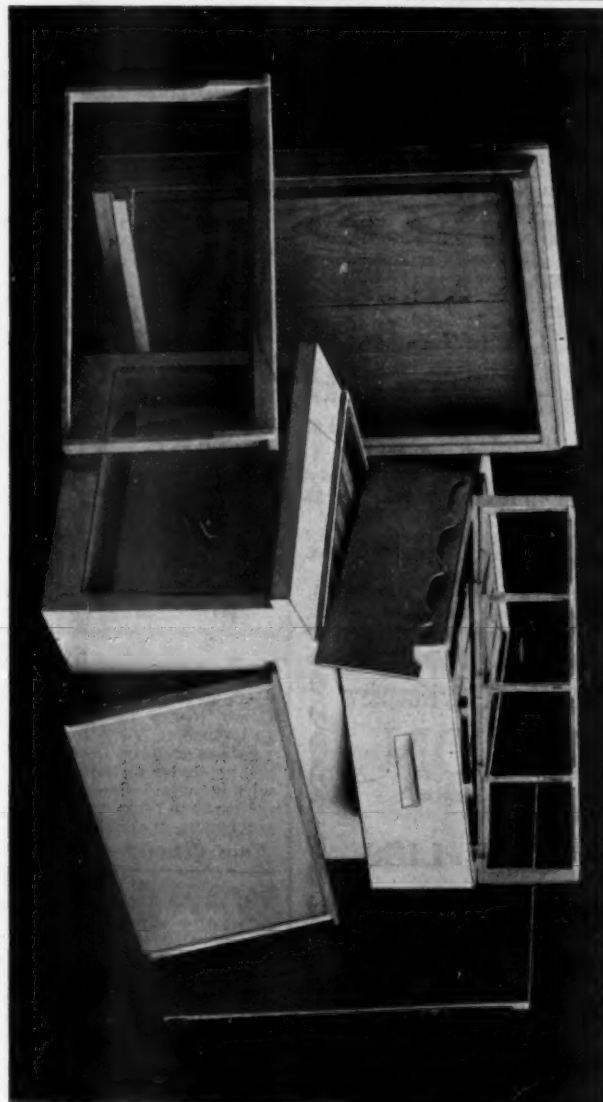
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